



Latin America Oil and Gas Opportunities,  
[www.lagoenergy.com](http://www.lagoenergy.com) - Houston, Texas



Argentina-Bolivia-Canada-Chile-Colombia-Ecuador  
India-Indonesia-Mexico-Panama-Peru-Spain-Turkey  
United Arab Emirates-UK-USA-Venezuela

LAGO Energy Presents,



[www.lagoenergyusa.com](http://www.lagoenergyusa.com)

A PROJECT AVAILABLE  
NOW FOR **SALE**



**JACKUP RIG LEVINGSTON IIIIC**

**Ref. LEATLEV01 (used rig)**

**Sales Price: US\$145 million**

- **Location: Gulf of Mexico Region**
- **Available: Now**
- **Water Depth: from 28 feet to 350 feet / Drilling Depth 25,000 feet.**
- **The rig is in Working Condition.**



Argentina-Bolivia-Canada-Chile-Colombia-Ecuador  
India-Indonesia-Mexico-Panama-Peru-Spain-Turkey  
United Arab Emirates-UK-USA-Venezuela

## **RELEVANT INFORMATION.**

- **Independent Leg Cantilevered Jackup Drilling Unit**
- **In June of 2001 maintenance including steel replacement in the preload tanks, drill water tanks and mud pits. The work scope included conversion and renovation of additional crew quarters as well as fabrication and installation of a new emergency generator house, fuel oil day tank and crane pedestal and installation of a new crane. In addition, the rig was dry-docked for inspection and necessary repairs to the spud cans. Also included was the blasting and painting of all of the preload tanks and drill water tanks.**

For this project detail information or other "Oil-Gas & Alternatives World Wide Projects" please contact:

**Hernan Arizmendi at: [harizmendi@lagoenergyusa.com](mailto:harizmendi@lagoenergyusa.com) or Margaret Ball at: [mball@lagoenergyusa.com](mailto:mball@lagoenergyusa.com)**

The information listed here is Private and Confidential, and is intended solely for the consideration of the individual to whom it is addressed. This is a limited presentation and all those with a potential interest must pre-qualify before confidential information can be made available. Should there exist any serious interest on your behalf, **LAGO Energy** would provide the necessary introductions.

The information contained in this presentation is preliminary information only in relation to the overview of the project and does not contain all the data needed.

This presentation does not constitute an offer to sell or a solicitation of an offer to buy any of the above listed projects or properties. Additional future interest regarding any of the information presented herewith will only be made to persons to whom and in jurisdictions in which it is lawful to make such request.

**LAGO Energy** – Houston, TX.  
[www.lagoenergyusa.com](http://www.lagoenergyusa.com)

**GENERAL DESCRIPTION AND EQUIPMENT LIST**

**A. GENERAL DESCRIPTION:**

Levingston IIIC independent leg cantilevered Jackup drilling unit designed to operate in water depths from 28 feet to 300 feet, and for drilling to a nominal well depth of 25,000 feet.

**Principal Characteristics and Dimensions**

Length overall	208 ft.
Length overall with heliport	269 ft.
Width of hull	178 ft.
Depth of hull	23 ft.
Number of legs	3 legs
Overall length of legs and spud cans	410 ft. plus 8 ft. point
Longitudinal leg centers	112.4 ft.
Transverse leg centers	130 ft.
Spud tank diameter	48 ft.
Spud tank height	6 ft. plus mud slide above and 8 ft. point below
Spud can load at preload	9,513 kips
Spud tank area (projected)	1,810 ft. <sup>2</sup>
Loadline draft	12 ft.
Jack house leg length requirement	56 ft.
Top of rotary table to bottom of barge	62 ft.

**Nominal Variable Deck Load**

Nominal operating variable deck load (maximum)	4,000 kips
Storm nominal variable deck load (maximum)	3,000 kips
Jacking variable deck load	3,000 kips
Transit variable deck load	
Field move	3,000 kips
Shallow water move	2,400 kips

**Water Depth Rating**

Minimum (depending on load)	28 ft.
Maximum (depending on leg penetration)	
- Non-hurricane season	300 ft.
- Hurricane season	Bottom of footing to bottom of platform must not exceed 356 ft.

---

## **Drilling Area**

Cantilever out (maximum aft of hull)	45 ft.
Cantilever out (minimum aft of hull)	7.5 ft.
Transverse skidding either side of center	12 ft.

The sub-base can move longitudinally on top of cantilever beams allowing for skidding sub-base and substructure onto platform.

## **Maximum Caisson Diameter That Can Be Driven**

Maximum outside diameter caisson that can be driven

- No modifications	36 in.
- Minor modifications, such as remove rotary table	48 in.
Note: 1) pollution pan opening is 50'	
2) rotary table support beams (longitudinal) have a 56" clearance	
3) rotary table skid beams (transverse) have a 58" clearance	
- Significant modifications, such as remove rotary table skid, rotary table support beams and modify pollution pan.	84 in.

## **Air Gap**

The Company has adopted API RP 95J as the criteria to determine minimum air gap for Jackups in hurricane season in the Gulf of Mexico. Based on those criteria, the following minimum air gaps will apply to all locations:

Water depths up to and including 50 feet - 47.5 ft. air gap  
Water depths between 51 feet and up to and including 60 feet - 50.0 ft. air gap  
Water depths between 61 feet and up to and including 70 feet - 55.0 ft. air gap  
Water depths between 71 feet and up to and including 80 feet - 62.0 ft. air gap  
Water depths 80 feet and greater - 62.0 ft. air gap

Non-hurricane season	35 ft.
Maximum as controlled by length of lifeboat cables (100 ft.)	88 ft.
Extendible with auxiliary submersible pumps (not included)	
Mean low water depth (chart datum)	

---

## **Tow Requirements**

The minimum tow vessel requirements is three 4,200 horsepower class tugs with a combined 125 short tons bollard pull. In some cases two tugs with a minimum combined bollard pull of 125 short tons can be used. A third 4,200 horsepower class tug with a minimum 42 short ton bollard pull can meet the rig to assist in positioning the rig on location.

**Nominal Tow Speed** (With tugs having 125 St. Bollard pull) 3.0 knots.

---

## **Water Depth Rating**

Minimum (depending on load) 28 ft.  
Maximum (depending on leg penetration)  
    Non-hurricane season 300 ft.  
    Hurricane season \* 280 ft.  
    (\* depending on leg penetration)

## **Capacities**

Drill water 5,532 bbls  
Diesel fuel 4,133 bbls  
Potable water 904 bbls  
Liquid mud capacity 1,546 bbls  
Dry bulk mud 3,000 cu. ft.  
Dry bulk cement 3,000 cu. ft.  
Sack material 600 sacks  
Mineral/oil base mud stock 1,900 bbls

## **Quarters**

Accommodations are provided for 66 men complete with all normal living facilities and a sick bay for three (3) men.

## **Drilling Loads**

Derrick and hook 1,000 kips  
Rotary 1,000 kips  
Setback 600 kips  
Maximum combined hook, rotary and setback \* 1,600 kips

(\* Will be less in some drilling positions. See attached load chart.)

### **Helideck**

62 ft. helideck on bow of rig for Sikorsky S-61 helicopter. Deck capacity is 21,000 lbs.

### **Jacking**

Twelve (12) motors per leg power the movement of each of the three (3) legs. Each motor is 600 volt, 60 cycle AC induction type motors. Power is provided by AC generators operated from one control panel in pilot house. Jacking system is capable of jacking up rig at a rate of 1 ft. per minute and jacking down at a rate of 1.3 ft per minute.

### **Class**

ABS Maltese Cross A-1 Self-elevating Mobile Offshore Drilling Unit.

### **Design**

Levingston Shipbuilding Class III modified cantilever Jackup

### **Commissioned**

July 1972.

### **Documentation**

U.S. Flag/U.S. Certificate of Documentation - U.S. Coast Wise with U.S. Coast Guard Certificate of Inspection.

---

## B. DRILL FLOOR EQUIPMENT

1. Drawworks - Oilwell E-3000 driven by 2 EMD D79 traction motors. Drawworks complete with Lebus grooving for 1-1/2 in. drill line, makeup and breakout catheads, Crown-O-Matic and master control.
  - One (1) Baylor 7838 electric brake, complete with battery backup system.
2. Mast - Derrick 30 ft. x 30 ft. x 162 ft., rated at 1,000,000 lbs. static load. The derrick is complete with all standard accessories which include:
  - One (1) racking platform to accommodate 30,000 ft. 3-1/2 in. drill pipe.
  - One (1) Deckard Model A with 20 ft. adjustable lift with 1 ton air hoist stabbing board.
  - Crown safety platform complete with safe handrails and walk-around.
  - Derrick is complete with Class 1 Division 1 explosion proof lighting.
3. Traveling equipment consisting of:
  - One (1) Oilwell 760, 600 ton crown block with 7 - 60 in. sheaves grooved for 1-1/2 in. drill line.
  - One (1) Oilwell 650, 650 ton traveling block with 6 - 60 in. sheaves grooved for 1-1/2 in. drill line.
  - One (1) Dynaplex 500 ton hook.
  - One (1) National P-650, 650 ton swivel.
  - One (1) Varco TDS-3 Top Drive drilling system with raised backup system and PH-60 pipe handler.
  - One (1) Panasonic TV mounted in derrick to assist Driller w/connections.
4. One (1) Hercules type 120 drill line anchor rated for 120,000 lb. line pull with 1-1/2 in. drill line.
5. Rotary - Oilwell 37-1/2 in. driven by EMD D79, 750 hp DC motor.
  - One (1) Oilwell RT2010 two (2) speed rotary transmission.

Low Gear	1.667 to 1
High Gear	1 to 1.515
  - One (1) Varco type MPCH No. 6600 hinged pin drive master bushing.

- One (1) 20" Airflex inertia brake.
6. One (1) Mathey wireline unit with 20,000 ft 0.092 wire, line guide and depth indicator.
  7. One (1) Eastman deviation recorder with one (1) recording instrument 0° to 6°.
  8. Standard drill floor instrumentation consisting of Driller's console with weight indicator, mud pump pressure gauge, SPM gauges, rotary amp gauge, rotary RPM gauge and side drive controls.
  9. One (1) Petron mud monitoring system that monitors pit volume, flow rate, complete with stroke counters and audible and visual alarms, with monitors in Toolpusher's office and Company Rep office.
  10. Air winches consisting of:
    - Two (2) drill floor, 9,000 lb. nominal rating.
    - Two (2) BOP deck, 6,000 lb. nominal rating.
    - One (1) derrick racking board, 3,000 lb. nominal rating.
    - Two (2) BOP deck, 9,000 lb. nominal rating, to move BOPs.



---

## C. MUD CIRCULATING SYSTEM

1. Two (2) Oilwell A-1700 PT triplex mud pumps, driven by 2 EMD D-79, 750 hp DC motors. Each pump is complete with Hydril K-5000 discharge dampener and Cameron 3 in. 5M reset relief valves. Each pump has a Demco 5x6 75 hp charging pump. Pumps normally equipped with 6-1/2 in. liners rated for 3,043 psi. (90% of maximum mud pump discharge)
2. Mud service pumps consisting of:
  - Three (3) Demco 6 x 8 mixing pumps with 100 hp electric motors.
  - One (1) Demco 6 x 8 desander pump with 75 hp electric motor.
  - One (1) Demco 6 x 8 desilter pump with 75 hp electric motor.
3. Mud cleaning equipment consisting of:
  - Two (2) Brandt Model LCM-2D/CM-2 shakers, cascade, linear motion. System consists of one (1) upper CM-2 scalping shaker mounted over one (1) lower LCM-2D linear shaker.
  - One (1) Double Life Flo-Champ V310 desander with three (3) 10 in. cones, 1,040 gpm capacity.
  - One (1) Double Life Flo-Champ V514 desilter with fourteen (14) 5 in. cones, 1,120 gpm capacity.
  - One (1) Fluid Systems Series 20L linear motion desilting mud cleaner, 800 gpm.
4. One (1) Swaco vacuum degasser, 1,000 gpm capacity.
5. One (1) mud/gas separator 48 in. OD x 10 ft. tall atmospheric type with 8 in. vent line extending to top of derrick and with 8 in. liquid leg.
6. Liquid mud pits consisting of:

Active Pit #1	385 bbls
Active Pit #2	362 bbls
Reserve Pit 362 bbls	
Slugging Pit	70 bbls
Sand Traps 316 bbls	
<u>Trip Tank</u>	<u>40 bbls</u>
Total Capacity	1,535 bbls

7. Mud Agitators

- Three (3) Brandt mud agitators with 20 hp AC motors, in Pits #1, #2 & #3.

8. Three (3) Demco 3 in. low pressure mud guns (1 per pit).

9. Pneumatic bulk mud and cement storage transfer system consisting of:

- Three (3) 1,000 cu.ft. pneumatic bulk mud storage tanks - total 3,000 cu.ft.
- Three (3) 1,000 cu.ft. pneumatic bulk cement storage tanks - total 3,000 cu.ft.
- One (1) 70 cu.ft. pressurized surge tank for use in mud mixing area.
- One (1) Quincy Model QSLP60 air compressor with heat exchanger. Rated capacity is 490 cfm @ 40 psi.
- One (1) Pioneer Refrigerated Model A1200A air dryer. Rated capacity is 1,200 cfm @ 100 psi.
- Backup low pressure bulk system air furnished by rig air compressors through a 125/40 psi regulating station.
- Crossover line that allows bulk mud or cement to be stored in any of the six (6) P tanks.

10. One (1) sack storage area located at mixing hoppers - 1,760 sq. ft.

11. Two (2) Demco low pressure mud hoppers, one sack fed, and one tank/sack fed.

12. One (1) basic set of mud testing equipment as required.

13. One (1) dual 5 in. standpipe manifold with 5,000 psi Demco valve outlets for mud gauges and choke manifold.

14. Two (2) 3 in. ID x 75 ft. rotary hoses with 4 in. NPT male outlets with 5,000 psi working pressure.

15. One (1) 40 bbl. trip tank with continuous fill capabilities to the well bore.

16. Six (6) 2 in. Chiksan loops with 10,000 psi WP and 1502 connections.

17. One (1) 2 in. Copper States 50 ft. - 10,000 psi WP cementing standpipe.

18. Mud system and rig equipment to drill and complete with oil base mud.

- Main deck is completely combed.
- Drill floor is zero discharge.
- Shaker area can be set up for auger system furnished by Operator.
- Have oil base transfer pump.
- Can use center diesel tank for storage of mineral/oil base feed stock storage for 1,900 bbls.
- Have loading stations piped to mud pits for transfer of oil base mud to boat.

## D. WELL CONTROL AND SUBSEA EQUIPMENT

### 1. Blowout preventers consisting of:

- One (1) 13-5/8 in. x 10,000 psi WP Cameron type “U” single ram blowout preventer with manual locks. Two (2) 4-1/16 in. x 10,000 psi WP flanged outlets and 10,000 psi flanged connections top and bottom.
- One (1) 13-5/8 in. x 10,000 psi WP Cameron type “U” double ram blowout preventer with manual locks. Four (4) 4-1/16 in. x 10,000 psi WP flanged outlets and 10,000 psi flanged connections top and bottom, lower cavity equipped with Stewart & Stevenson type Q tandem booster assemblies
- One (1) Schaffer 13-5/8 in. x 5,000 psi WP annular preventer with 5,000 psi studded connection top and 10,000 psi flanged connection bottom.
- Two (2) 3-1/16" manual operated gate valve for BOP stack with 10,000 psi WP.
- Two (2) 3-1/16" hydraulic operated gate valve for BOP stack with 10,000 psi WP.  
BOP Ram Blocks:
  - 1 set Stewart & Stevenson type Q blind shear ram assembly (upper & lower)
  - 2 sets 5” fixed
- Two (2) Coflexip 3 in. ID x 10,000 psi armored choke & kill hoses, 40 ft. long.
- ◆ Hoses are not compatible with Zinc Bromide. Operator/Company will be responsible for providing replacement hoses at its cost when using Zinc Bromide.

### 2. Diverter system consisting of:

- One (1) 21-1/4 in. Hydril MSP 2000 – 2,000 psi WP annular preventer.
- Two (2) Demco 12 in. Series 900 hydraulic operated ball valves, 2,000 psi WP.
- One (1) 2,000 psi WP diverter spool.

### 3. BOP and diverter control system consisting of:

One (1) 3,000 psi WP automatic pump accumulator unit complete with:

- Twenty (20) 11 gallon accumulator bottles.
- One (1) 315 gallon reservoir tank.

- One (1) Koomey Model T315 triplex pump.
  - Three (3) Alemite air pumps.
  - One (1) Koomey Model ARC-6 auxiliary air remote control panel.
  - One (1) Shaffer electrically operated remote control panel.
  - One (1) Koomey air operated fail-safe regulator for annular with manual overdrive.
  - One (1) Koomey 3,000 psi WP manual regulator for manifold.
  - Six (6) 1 in. 4-way, three position selector valves.
  - One (1) backup air supply consisting of one (1) bottle of nitrogen regulated and plumbed into rig air supply in case of loss of rig air.
4. One (1) 10,000 psi WP choke manifold complete with the following:
- Two (2) 2-9/16 in. ID Swaco super chokes.
  - One (1) 2 in. manual adjustable choke.
  - Two (2) positive chokes.
  - Ten (10) Cameron 4-1/16 in. type F gate valves.
  - Two (2) Cameron 2-1/16 in. type F gate valves.
  - Two (2) buffer chambers for splitting the manifold.
5. One (1) 120,000 lb. constant hydraulic drive pipe support system balanced with 30 gallons of accumulator capacity for drive pipe movement.
6. One (1) Marathon Letourneau electric hoist for handling BOPs, 60 ton rated capacity.

---

## E. DRILL STRING AND HANDLING TOOLS

### 1. Drill Pipe:

- 7,500 ft. of 5 in. OD, 19.50 lb./ft. Grade "G", Range 2 drill pipe, internal external upset (I.E.U.) with 6-3/8 in. OD x 3-3/4 in. ID, 18 deg. taper tool joints with 4-1/2 in. IF (NC-50) connections. Pipe internally coated and hard banded on boxes with Arnco 200-XT hard banding.
- 7,500 ft. of 5 in. OD, 19.50 lb./ft. Grade "S-135", Range 2 drill pipe, internal external upset (I.E.U.) with 6-1/2 in. OD x 3-1/2 in. ID, 18 deg. taper tool joints with 4-1/2 in. IF (NC-50) connections. Pipe internally coated and hard banded on boxes with smooth fine particle flush hard banding.

### 2. Drill Collars:

- Fifteen (15) 6-1/2 in. OD x 2-13/16 in. ID x 31 ft. long drill collars with 4-1/2 in. IF connections.
- Fifteen (15) 8 in. OD x 2-13/16 in. ID x 31 ft. long drill collars with 6-5/8 in. API REG connections.

### 3. Thirty (30) joints of 5 in., Range II Hevi-Wate drill pipe, 4-1/2 in. IF connections with 6-1/2 in. OD tool joints and 3-1/8 in. ID, 18° taper tool joints.

### 4. Bit breakers for standard three cone drill bits - 14-3/4 in. to 6-1/4 in.

### 5. Subs consisting of:

- Six (6) 4-1/2 IF lift subs.
- Six (6) 6-5/8 REG lift subs.
- Two (2) 6-5/8 REG pin X 4-1/2 IF box crossover.
- Two (2) 6-5/8 REG box X 6-5/8 REG box bit subs (1 bored for float).
- Two (2) 4-1/2 IF box X 4-1/2 REG box bit subs.
- One (1) 4-1/2 IF pin end pump in sub.
- One (1) 4-1/2 IF box end pump in sub.
- Two (2) 4-1/2 IF box X pin TIW valve.
- Two (2) 4-1/2 IF box X pin inside BOP.

6. Drill pipe and drill collar elevators consisting of:
  - Two (2) sets 5 in. type BJ M66 350 ton 18° taper drill pipe elevators.
7. Elevator links consisting of:
  - One (1) set of Blohm and Voss 180 in., 350 ton.
  - One (1) set Varco 180 in., 500 ton.
8. Drill pipe tongs consisting of:
  - Two (2) BJ Type DB manual tongs with adjustable jaws for pipe sizes 3-1/2 in. to 11-1/4 in., rated to 65,000 ft./lbs. and from 11-3/4 in. to 16 in., rated at 40,000 ft./lbs.
  - Two (2) BJ type SDD manual tongs w/lug jaw assemblies for pipe size 4 in. to 12 in., rated at 100,000 ft. lbs.
9. One (1) drill pipe spinner, Spin Master - 550 to handle pipe sizes from 3-1/2 in. to 5 in.
10. Slips consisting of:
  - One (1) set 5” air operated drill pipe slips
  - Two (2) sets each Varco type SDXL for 5 in. drill pipe.
  - Two (2) sets each Varco Model L for 8 in. drill collars.
  - One (1) set Varco Model 8-R for 6-1/2 in. drill collars.
  - One (1) set Varco for 4-1/2 in. to 7 in. drill collars.
11. One (1) Varco type MPR safety clamp for 6-1/2 in. to 8 in. drill collars.
12. One (1) Oteco mud guard mud saver bucket.
13. Drill pipe wiper rubbers for 5 in. drill pipe.
14. One (1) Drilco EZY torque hydraulic cathead rated for 150,000 ft. lbs. maximum torque.
15. One (1) Varco AR-3200 Iron Roughneck.

## F. AUXILIARY EQUIPMENT

1. Diesel electric rig power system consisting of:
  - Two (2) EMD Model 16-645-E1 diesel engines, each rated at 1,950 hp at 900 rpm. Each engine drives a 1,550 KW 600V EMD AB21 generator.
  - One (1) EMD Model 8-645-E1 diesel engine, rated at 1,000 hp at 900 rpm. Engine drives a 700 KW 480V EP/Portec Type L-10986 generator.
  - Six (6) Bay IPS/SCR systems with 1,000 amp frequency.
  - One (1) emergency diesel generator powered by Caterpillar 3412 w/750 hp diesel engine driving a 500 KW AC generator.
2. Rig air compressors consisting of:
  - Two (2) Quincy 490 screw type water cooled with 125 psi operating pressure with free air delivery of 494 cfm driven by 125 hp electric motor for rig air.
  - One (1) Quincy Model 60 AS with after cooler heat exchanger, rated capacity is 432 cfm at 40 psi driven by 60 hp electric motor for bulk air.
  - One (1) Quincy Model DS-340 compressor powered by 15.4 hp Lister diesel engine, hand crank/electric start, for emergency start air compressor.
3. Material handling equipment consisting of:
  - One (1) Branham Sea King Series 62 sea crane with a 100 ft. boom rated at 92,600 lbs. at a 30 ft. radius.
  - One (1) SeaTrax Monarch Series 60, Model 6024, with a 120-ft. boom rated at 114,560 lbs. at a 30-ft. radius with a 4-part line.
4. Two (2) personnel transfer baskets.
5. One (1) lot of certified slings and bridles for loading and off loading rig.
6. Welding machines:
  - Two (2) 400 amp motor generator type welding machines.
  - Two (2) 500 amp rectifier type welding machines.
7. One (1) Alfa Laval Nirex Model JWP-36-C100DE waste heat unit, rated capacity of 10,200 gallons per day.



8. Safety equipment required to comply with USCG, SOLAS, and ABS:

- Three (3) 28 man Whittaker capsules, complete with launch and recovery system
- Three (3) 25 man Davit launch inflatable life rafts.
- Individual life preservers.
- Fire extinguishers.
- Station bill.
- Two (2) complete fireman's outfits.
- General alarm.
- Identification signs.
- 100 lb. CO<sub>2</sub> system for paint locker with hand device.
- Equipment guards.
- Pollution pans.
- Imperial exposure suits for 150% of drilling unit personnel capacity.
- One (1) set spill and prevention equipment.
- One (1) 2,500 lb. fire boss unit located outside engine room.
- Two (2) 125 lb. wheeled dry chemical units.
- One (1) 200 lb. semi-portable CO<sub>2</sub> unit in engine room with 50 ft. of hose and applicator nozzle.
- Two (2) Mattco 3 x 4 fire pumps
- Each engine has "rig saver" emergency shutdown either air operated or manual.
- One (1) 2,200 lb. CO<sub>2</sub> system for engine room
- One (1) 600 lb. CO<sub>2</sub> system for SCR room

9. One (1) Gaitronics Paging Center System II with 36 stations.

10. Service pumps:

- Drill water pumps - Two (2) Mattco 3 x 4 x 13 in. impeller with mechanical seals.
- Salt water and fire pumps - Mattco 3 x 4 x 13 in. impeller with mechanical seals.
- Fuel pumps - Two (2) Roper type I with Bowser filter.
- Potable water pump - Two (2) Berkley Model 130 vertical single stage.
- Sanitary water pump - Two (2) Specific Model 150 vertical single stage.
- Lube oil centrifuge pump - Alfa-Laval Model MAB-1048-24-60/4108-5.
- Fuel oil centrifuge pump - Alfa-Laval Model MAB-104.

11. Deep well system:

- Two (2) Gould 6 in. 75 hp 3 stage submersible pumps
- One (1) Gould 8 in. 75 hp 3 stage submersible pump

12. Communication equipment:

- One (1) dedicated 490 MHz radio telephone link, private line with fax and modem capability, through the IWL Communications, Inc. microwave system (DODI use only).
- One (1) three watt transportable cellular radio telephone with fax capability for backup or emergency phone communication through Petrocom (DODI use only).
- Two (2) VHF radios in pilot house.
- One (1) VHF radio in port and starboard crane.

13. Sewage treatment:

- One (1) Omnipure Model 12-MC sewage treatment system rated for 120 persons.

14. One (1) Rol-lift truck pallet fork 5,500 lbs. capacity, 27x48 in. hydraulic.

15. One (1) Yale electric forklift with 4,000 lb. lifting capacity.

16. One (1) Gulf Gulp offshore food disposal, Model 500, 5 hp

## **G. THIRD PARTY EQUIPMENT**

One (1) Halliburton Services twin Detroit diesel 8V71 (HT-400 hydraulic pumps rated at 10,000 psi WP) Model SKD-4 skid unit with 8 BBL Re-circulating Mixing Systems (RCM II) driven by a Detroit 371 engine and 80 CF Surge Tank (maintenance, operation, and rental for operator's account).

Note: Periodically it will be necessary to substitute like equipment for the purpose of inspection, overhaul, repair, upgrade, etc. for the equipment listed in this exhibit.

Load ratings are nominal and may vary according to Manufacturers' wear tolerances.

CANTILEVER LOAD CHART

Centerline Hull													
Starboard						Port							
12'	10'	8'	6'	4'	2'	0	2'	4'	6'	8'	10'	12'	
500	570	650	720	820	910	1000	910	820	720	650	570	500	-45'
600	6870	760	860	980	1090	1200	1090	980	860	760	680	600	-40'
730	835	930	1060	1150	1320	1475	1320	1150	1060	930	835	730	-35'
900	1025	1120	1240	1400	1500	1600	1550	1400	1240	1120	1025	900	-30'
1150	1250	1350	1480	1600	1600	1600	1600	160	1480	1350	1250	1150	-25'
1320	1430	1600	1600	1600	1600	1600	1600	1600	1600	1600	1430	1320	-20'
1600	1600	1600	1600	1600	1600	16000	1600	1600	1600	1600	1600	1600	-7'-6'

Fwd

Maximum combined hook, setback & rotary (kips)

Maximum individual loads

- Hook load                    1,000 kips
- Setback load                600 kips
- Rotary load                 1,000 kips

- \* Elevated pipe rack        600 kips
- \* This is in addition to the maximum combined load.

-----00000000000000-----

For this project detail information or other "Oil-Gas & Alternatives World Wide Projects" please contact: Hernan Arizmendi at: harizmendi@lagoenergyusa.com or Margaret Ball at: mball@lagoenergyusa.com

-----  
www.lagoenergyusa.com